



Evaluating slum (favela) resettlements: The case of the Serra do Mar Project, São Paulo, Brazil



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ABSTRACT

Slum clearance and resettlement schemes have increasingly become a feature of everyday life in Brazil and the rest of the world. The right to decent housing can involve relocating slum families to places that not only fulfill the precepts of adequate housing but also enhance the self-respect and quality of life of these families. Resettlement can however also heighten their vulnerabilities. This article is the result of a study which sought to evaluate how the resettled residents of a housing complex had adapted to their new surroundings following their involuntary displacement from the slums “favelas” to a development with characteristics different from those commonly found in Brazilian social housing. The research method employed in our study used tools to collect the viewpoints of the different actors in the process, and to assess user satisfaction. The uncertainty measure was used to analyze the quantitative data. The results showed that (i) involuntary removal is not a determining factor in user satisfaction, and (ii) residents' satisfaction levels are more influenced by a number of positive factors, especially the location of the housing development and its associated services, facilities and opportunities that enhance their quality of life, than by any drawbacks arising from their forced removal from the “favelas”. However, issues such as condominium management, buildings maintenance and higher costs may risk undermining the benefits of the project.

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1. Introduction

Urban schemes involving relocating families can result from pressures to free up land for construction works, to protect the environment or to avoid risk situations. Even projects where it is decided to retain the population on the site of a development full or partial removals are undertaken. Denaldi (2003) and the Removals Observatory (2012) have shown that slum densification and the occupation of places that are increasingly unsuitable for housing generate the need for removals. However, as pointed out by the United Nations (2011), the land market, the construction industry and other interests can also stimulate removals, which are: “*elaborately justified in the name of the broader public good and given developmental process names such as “infrastructural development”, “nature conservation”, “rural development”, “urban renewal”, “slum upgrading”, “slum eradication” and “inner city regeneration”.*”

Forced evictions are a growing world phenomena and may represent a violation of peoples' basic rights to adequate housing (UN, 2011). One of the rights of people affected by removals is to be resettled in places of equal or better quality and to occupy housing that must meet decent housing criteria (UN, 2004).

Involuntary displacement to make way for development projects has been criticized as contributing to the further impoverishment of the poor. Despite current improvements in the planning and execution of removals, the long-term consequences of resettlement for the affected populations have not been fully anticipated or acted on (Takesada, Manatunge, & Herath, 2008).

Despite many governments acknowledging the right of people to occupy decent affordable housing, the actual process of giving tangible form to this right has sometimes resulted in communities being exposed to vulnerable situations and violations of their rights, thus putting at risk any benefits accruing from their displacement. This calls for better understanding of the process of adaptation and the problems faced by resettled families in their new surroundings once their removal has become inevitable.

In Brazil the government's understanding of, and approach to,

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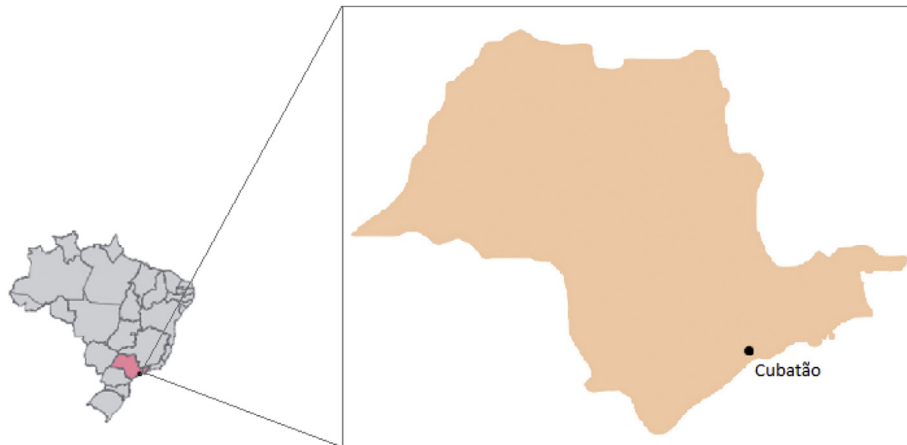


Fig. 1. Location of the city of Cubatão.

“favelas” has undergone a series of conceptual changes over time. It was originally posited that slum clearance was the only solution to the housing problem since “favelas” were regarded as a malignancy to be extirpated from the real city. However, since the 1980s the idea took root that families should whenever possible be retained in the places where they lived, thus minimizing their already precarious situation and reducing the trauma of removal. Despite the fact that interventions were at certain times given priority under the government’s housing policy, the two approaches (removal and retention) coexisted for most of the time. In other words, both slum upgrading and the removal of shacks and families continued over the years to typify public social housing practices.

This article presents the results of an analysis of the removal and resettlement process involving families moved from a “favela” to the Rubens Lara Complex, located in Cubatão, in the state of São Paulo, Brazil. The analysis was performed mainly from the point of view of post-occupancy management.

2. Cubatão and the Serra do Mar Project

The municipality of Cubatão is located in southeast Brazil, 58 km from the city of São Paulo (Fig. 1), and forms part of the Baixada Santista metropolitan area. It had 118,720 inhabitants in 2010 (Brazilian Institute of Geography and Statistics – Instituto Brasileiro de Geografia e Estatística [IBGE], 2010). Benefiting from excellent energy supplies, the city possesses a large industrial base, including an important steel and petrochemical complex. Occupying a strategic position, close to the Port of Santos and within easy reach of other industrial cities in São Paulo state, Cubatão also has good communication links with other states in the southeast producing durable goods. Two major highways serving the city, the Anchieta (built between 1939 and 1947) and the Imigrantes (built 1974–2002 in two phases), cut through the Atlantic Forest environmental preservation area.¹

Occupation of parts of the Atlantic Forest began with the arrival of workers contracted to build those highways in the region. The development of the São Paulo, Cubatão and Santos industrial triangle attracted workers from all over the country and, as frequently occurs, this lower-income group was forced to informally occupy whatever land was available, leading to the emergence of a large squatter settlement known as Bairros-Cota in an environmentally

sensitive area (Fig. 2). In order to preserve this area, the *Serra do Mar State Park* was established in 1977. According to the *São Paulo Authorities and IDB (2013)* the park, together with the Jacupiranga, Jureia-Itatins and Paranapiacaba Mosaics, constitutes the largest continuous stretch of preserved Atlantic Forest in Brazil.

In an effort to save the threatened area, the São Paulo state government created in 2007 the Environmental Recovery Program of the Serra do Mar and the Atlantic Forest Mosaics Systems (the *Serra do Mar Project*). One of the aims of the project, which receives State budgetary funding and resources from the Inter-American Development Bank (IDB), was to remove part of the families occupying the area (São Paulo, IDB, 2013).

The families relocated from the park were transferred to a housing development run by the São Paulo State Housing and Urban Development Company – Companhia de Desenvolvimento Habitacional e Urbano (CDHU). For the purposes of this study we selected the Rubens Lara Complex (Fig. 3), one of the housing developments specially built in Cubatão for the Serra do Mar Project, containing 1840 housing units for an estimated residential population of 7350. This complex has unique characteristics that distinguish it from other state-funded social housing developments in Brazil, i.e. a variety of accommodation types, location in a central neighborhood and built to reasonably good specifications, with official ‘social support’ provided for the residents over a period of 24 months, unlike the more customary six months.

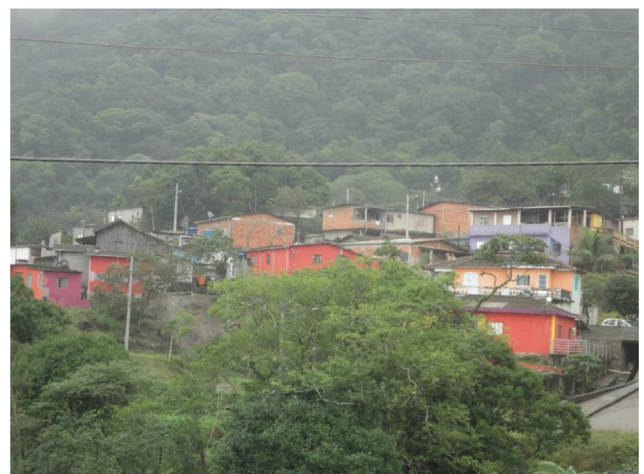


Fig. 2. View of one of the settlements in Bairros-Cota. Credits: Débora Cavalleiro.

¹ Developed by the author. Source of the figures used: <http://www.ibge.gov.br/english/> and <http://hdl.handle.net/123456789/1117>. Accessed: 08/04/2015.



Fig. 3. Rubens Lara Complex. Credits: Humberto Schmidt.

The Rubens Lara Complex is considered to be an example of alternative construction, possessing a series of advantages, including solar panels for waterheating and individual water meters (UNEP, 2010). Three types of housing are found in the complex: three-storey housing units, apartment buildings on four floors and nine-storey apartment blocks with elevators (Fig. 4).

3. Condominium management and social support initiatives

Resettlement in new homes is not easy for residents (Schmidt-Soltau, 2003). The characteristics, components and manner in which a resettlement intervention is undertaken can complicate or facilitate this process. It was identified two key questions influencing adaptation by relocated families: the 'condominium model' and 'social work'.

Living in condominiums is more complex than in separate dwellings since it forces residents to interact on issues such as the upkeep of common areas (Kuo, Chou, & Sun, 2011). Ho and Gao (2013) assert that, notwithstanding the shared goal to create an agreeable and comfortable environment, in many cases this is not sufficient motivation for residents to play their proper part in condominium management.

With the increasing number of condominiums (which currently form a significant part of Brazil's housing stock) it is clear that the way in which the condominiums are managed will increasingly influence the overall quality of the housing environment (Hsieh, 2009). According to Saile, Borooah, and Williams (1972), housing management can impact satisfaction levels just as much as factors such as e.g. project design. These authors are critical of social housing management principally on account of the absence of guidance for dealing with specific problems encountered by the rehoused low-income population.

'Social work' consists basically of a set of strategies, actions and

procedures aimed at "Promoting social participation, improving living conditions and ensuring the social rights of beneficiaries and the sustainability of the intervention" (Ministry of Cities, 2014). The priority social work areas according to the Ministry's precepts are: mobilization, organization and social empowerment, monitoring and social management of the intervention, environmental and conservation education and socioeconomic development.

4. The study method

It had been used research tools which made it possible to collect the views of technical staff involved in the project, explore the characteristics of the residents' new environment and assess user satisfaction. In order to obtain a more global view of the project interventions and the difficulties of each sector, including problems in the built environment, it had sought to measure how well the residents had adapted not only to the overall project and the physical space, but also to their new *modus vivendi* in, and beyond, their new surroundings. The entire data survey was done over a period of 30 months.

In order to gain a good understanding of the project, had been interviewed 14 semi-structured interviews key staff involved in the Serra do Mar project such as CDHU professionals, social work practitioners, community leaders and people engaged in condominium management.

The overall aim of the inspection was to evaluate the project from a physical and usage point of view. This involved inter alia obtaining information on condominium administration, especially on key items such as property security, fire protection, maintenance of common areas, construction defects and waste management.

It had been circulated 201 questionnaires to residents with a view to learning about their socioeconomic profile, their levels of satisfaction concerning their current and former homes,



Fig. 4. Rubens Lara Complex: types of housing. Credits: Débora Cavalheiro.

condominium living, social work, relationships, etc. A specific questionnaire for local condominium managers (“síndicos”) sought to clarify management issues, operational problems and the impacts of organized social work on residents.

A small number of condominiums were chosen for closer analysis. Firstly, it was surveyed the condominiums containing substantial numbers of residents who had been living there for at least one year. Secondly, it was selected condominiums in the three basic housing-type categories containing different numbers of housing units. It had been decided to target in this study on a maximum of five condominiums with between 24 and 146 units (the Rubens Lara Complex comprises 26 condominiums with between 12 and 192 housing units in each).

Data from the questionnaires were tabulated and, in addition to descriptive analysis, the U-Uncertainty model based upon fuzzy logic concepts. According to [Moraes and Abiko \(2008\)](#), the use of this uncertainty measure makes it possible to check the bulk of responses. Thus where consensus exists in the distribution, where only one alternative is chosen, the uncertainty measure (U) is equal to zero. However, if the distribution presents equal frequencies among the alternatives, and no consensus exists, the uncertainty measure is equal to 01. The uncertainty measure is calculated by:

$$U_n(A) = \frac{1}{h(A)} \int_0^{h(A)} \log |^{\alpha} A| d\alpha / \log |A|$$

where $A(x)$ and h is the relative frequency and h is the maximum distribution value in the response.

5. Results and discussion

Based on questionnaires, inspections and interviews, it is possible to highlight the main issues related to the resettlement process.

5.1. Desire (or not) to leave the “favela” versus satisfaction with new home

It had been found that the satisfaction level of residents was not influenced by their desire to leave the “favela”. In other words, the fact that residents had been involuntarily removed from their previous neighborhoods was not a reason for them having negative views about their new surroundings. The response to the question “Did you want to leave your neighborhood?” was used as a control variable, and in this case 45.3% of the residents in the housing complex replied that they had not wanted to move from their homes in the “favela”.

The analysis shows the residents' satisfaction levels in general are not related with the desire of leaving the “favela”. In both cases the evaluation was positive and there was no decreased uncertainty among all the groups. However, had been detected a greater tendency towards a positive rating of life-change by those who had actually wanted to exit the “favela”, and this proved to be a more decisive factor in the overall assessment of life-change ([Table 1](#)). In the case of residents who had not wanted to leave their previous homes, the uncertainty level was higher. In other words, the evaluation of life-change may be influenced by other factors apart from people's desire to leave the “favela”. It is worth noting that the desire to remain or not in the “favela” had no influence on the satisfaction levels related to condominium management issues.

5.2. Neighborhood

It was noted that residents were most concerned with the problems of poor infrastructure, also recorded that residents missed friends and relatives as a result of the breaking of ties caused by the removal to the new housing complex ([Table 2](#)).

Regarding social interaction, 73.1% claimed that they did not know their current neighbors, and 59.2% had some relative who was more physically distant ([Table 3](#)). Contributing to the breakdown of social networks of residents formed in the “favela”.

The ‘freedom’ item above refers to residents' dissatisfaction with current condominium life on account of their limited ability to contribute to collective decisions.

According to the interviews, and important consideration for the residents was the greater ease of access to jobs and vocational positions. The availability of employment close to the housing development also made it easier for housewives “donas de casa” to find work. A further important point was that employers were more amenable to recruiting people from the housing complex since workers who had previously lived in the “favela” had found it difficult to get to work on account of the roadworks being undertaken there.

5.3. Condominium living

The residents from the Bairros-Cota who were culturally adapted to living in single-family homes were resettled in units forming part of a condominium, with communal spaces which needed to be managed on a collective basis.

With the introduction of the condominium model by law, public spaces such as roads, squares, etc. were effectively privatized. A condominium possesses private services which are ineffect‘public’ in the remainder of the city. With the privatization of spaces and services, the financial responsibility for these is transferred from the public authorities to the condominiums. This has led to the emergence of a market niche which is currently exploited by condominium management companies. With the adoption of the condominium approach the cost of maintaining roads, green areas, leisure facilities and so on are transferred to the residents themselves. It is worth remembering that these overheads were not previously shouldered by families living in “favelas”.

Some of the activities involved in condominium management are complex and require specific expertise and knowledge ([Hsieh, 2009](#)). A current trend is to outsource condominium management as the administrative workload becomes more onerous ([Yip, Chang, & Hung, 2007](#)). In Brazil, legislation has been the main barrier to adopting self-management. The increased legal requirements placed upon the condominium and its “síndico”, demanding specific expertise, favors the contracting of outside managers and even the emergence of the professional “síndico”. The many bureaucratic procedures involved in condominium management make it difficult to adopt self-management and necessarily call for contracting specialist professionals.

A further issue contributing to increased costs is the cost of condominium maintenance. Different studies have shown that maintenance costs during the useful life of buildings sometimes exceed those of the initial construction. It is clear that this issue must be seriously addressed by those responsible for social housing.

The large number of complaints arising from construction defects encountered in the Rubens Lara Complex. According to the residents who found it most difficult to adapt to their new homes, 18% highlighted defects in their units ([Table 5](#)). This impacted on the activities of social workers who wasted a considerable amount

Table 1
Uncertainties by category of desire to leave previous home.

Item	Degree of uncertainty	Wanted to leave	Value ^a	Did not want to leave	Value
Removal					
Life-change rating	0.30	0.16	+	0.58	+
Condominium					
Satisfaction with common area	0.37	0.28	+	0.51	+
Satisfaction with condominium management	0.42	0.35	+	0.54	+
Satisfaction with troubleshooting	0.52	0.49	+	0.55	–
Satisfaction with condominium maintenance	0.54	0.46	+	0.55	–
Evaluation of condominium charges	0.79	0.77	+	0.81	+
Satisfaction with condominium cleanliness	0.21	0.20	+	0.21	+
Satisfaction with condominium security	0.42	0.53	–	0.33	–
Satisfaction with how money was applied ^b	0.41	0.43	+	0.37	+
Attendance at meetings	0.31	0.37	+	0.28	+
Satisfaction with condominium communication	0.28	0.28	+	0.27	+

^a Value of evaluation: Tendency Evaluation, which may be positive or negative.

^b Satisfaction about how money was applied by the condominium.

Table 2
Positive and negative points of former neighborhood according to residents.

Categories		%
What people most liked in their previous neighborhood	Relationships	19.4
	Housing units	20.9
	Low costs	8.0
	Freedom	10.9
	Peace and quiet	8.0
	Nature	18.9
	Other	5.5
What people least liked in their former neighborhood	Housing unit	3.5
	Access	27.4
	Infrastructure	27.9
	Crime	6.5
	Topography	18.9
	Risk	5.5
	Other	13.9

of time listening to complaints about building problems from their clients.

Also, observed in the interviews with the condominium managers that some of the condominiums were not able to organize a reserve fund – a problem also identified in the studies by [Muhamad Ariff and Davies \(2011\)](#). A further problem found in the interviews was the lack of full documentation on the condominium, which made maintenance more difficult. It follows that the benefits of the housing intervention could be put at risk, given that the defects arising from new building, the difficulties of obtaining redress from the relevant construction companies, the absence of proper plans, and the lack of resources set aside for maintenance, may eventually have a negative effect on the building and make its maintenance even more costly. In this way according to the interviews with practitioners from the condominium management sector, the main difficulty with 'popular' condominiums is that of funding regular upkeep. The lack of a reserve fund, together with the absence of preventive maintenance, are likely to lead to the deterioration of the building. The surveys indicated that the condominiums in a better state of conservation were evaluated positively in terms of maintenance, but that the condominium charges were nevertheless considered

by residents to be expensive. These drawbacks are reflected in the study by [Hsieh \(2009\)](#), which argues that the main condominium management problems arise from inadequate financial reserves earmarked for repairs, unsatisfactory buildings maintenance and poor document management.

As for the buildings with elevators, their design is costly in a social housing context since elevators require regular high-cost maintenance which, if not carried out, can risk the lives of residents. This is confirmed by the CDHU's minimum income requirement demanded of people occupying this type of condominium and explains why the condominium charges in such places are higher.

5.4. Housing units

The studies by [Takesada et al. \(2008\)](#) record high levels of dissatisfaction by residents who considered that their previous housing units were better. Whereas in the case study has been observed that both groups tended to rate their new housing units positively, but the most cohesive group consisted of those residents who gave a negative rating to their previous unit, with less uncertainty.

The condominium variable does not present important uncertainty reduction with the tested group, however there is a tendency of positive evaluations about the aspects of condominium management to the ones who considered to had a worse conditions of housing situation.

Excepting security and meetings attendance the condominium variables had no influence, regarding condominium charges, it had been detected that these were not influenced by the quality of condominium services but rather by their impact on family budgets ([Table 4](#)).

Responses to open-ended questions showed that residents' homes in the "favela" were regarded as worse, mainly due to the quality of construction (27.8%) from scrap wood and to factors such as poor infrastructure, living in risk situations (16.7%), poor sanitation (9.7%) and the overall environment of the neighborhood (15.3%). In cases where people considered their previous homes to be better, this was generally due to their larger size (34.9%) and the

Table 3
Destination of family.

Destination	In the condominium	Another condominium in Rubens Lara	Cota	Another development	No relatives
% ^a	17.4	34.3	22.9	36.3	21.4

^a Percentage of total responses. Note this is a multiple choice question, since many residents had more than one relative in the "Cota" sent to different places.

Table 4
Uncertainty by category of rating of former dwelling.

Item	Degree of uncertainty	Worse	Value	Better	Value
Adaptation					
Current home	0.22	0.11	+	0.47	+
Condominium					
Satisfaction with common areas	0.37	0.35	+	0.39	+
Satisfaction with relationship with other residents	0.13	0.08	+	0.20	+
Satisfaction with relationship with “síndico”	0.13	0.12	+	0.17	+
Satisfaction with condominium management	0.42	0.33	+	0.56	+
Satisfaction with troubleshooting	0.52	0.49	+	0.57	–
Satisfaction with condominium maintenance	0.54	0.46	+	0.56	–
Evaluation of condominium charge	0.79	0.75	+	0.88	+
Satisfaction with condominium cleanliness	0.21	0.17	+	0.27	+
Satisfaction with condominium security	0.42	0.54	–	0.31	–
Satisfaction with how money was applied	0.41	0.36	+	0.47	–
Attendance at meetings	0.31	0.36	+	0.26	+
Satisfaction with condominium communication	0.28	0.27	+	0.31	+

Table 5
Difficulties of adaptation to the new housing units.

Categories	%
Size	17.2
General	
Backyard	9.0
Rooms	7.4
Toilet	5.7
Service area	14.8
Building defects	18.0
Staircase	8.2
Enclosed	4.9
Other	14.8

existence of leisure spaces such as a backyard, barbecue facility, etc. (23.3%). It was obvious that having a backyard was an important cultural facility for families, given that it could host a range of activities, as well as serving as a place to keep for animals and plants. In this respect, the most highly-valued housing units in the project are those that most closely resemble a house. Respondents argued that their current housing units were difficult to adapt to because of their small size (54.1%), and that discomfort was caused by defects in the fabric of the units (18%) (Table 5).

5.5. Social support

The analysis of the levels of uncertainty in the ‘satisfaction with social work’ category, satisfaction with condominium maintenance showed a slight decrease of uncertainty in both groups. A negative rating was given by those who also negatively rated social work (Table 6). One of the explanations for this is that social workers are responsible for routing and processing problems (construction defects, communal areas, etc.) referred to them by the “síndicos”. Satisfaction with condominium management, cleaning and communication produced positive ratings in both cases, but with reduced uncertainty regarding those satisfied with the social support provided. Meanwhile satisfaction with condominium troubleshooting and use of money were rated negatively by the people dissatisfied with the social work and positively by those satisfied with it. The level of uncertainty declined only in the positive cases, probably because social workers provide guidance to the “síndico” on financial questions and because one sector of the consortium manages the condominiums while social work is underway. Negative ratings with security also returned low uncertainty by those people dissatisfied with the social support in the complex.

Residents have little idea of social support schemes and their *modus operandi*, probably because they have never previously had any contact with this type of activity and find it difficult to know

what to expect. This was the main reason for the absence of replies on this point in the questionnaire. A considerable number of residents alleged that social work contributed nothing to their lives (Table 7).

Most residents of the Rubens Lara Complex receive under three minimum salaries² (76.1%) which, according to the *João Pinheiro Foundation* (2013), is the income range of families targeted by Brazil's housing deficit initiatives. However, only 5% of the sample population considered that social work had contributed in some way to enhancing their education or vocational training, or to improving their incomes.

Ho and Gao (2013) recommend that, in addition to providing courses for current community leaders, residents should be taught how to manage their condominiums. The case study shows that training for condominium leaders did not include all of them because the present course was targeted exclusively at the current “síndicos”. Training of future “síndicos” is bound to suffer given that these will have to rely on knowledge passed on by previous occupants of the job. Moreover, while knowledge exchange among residents is important, the latter would benefit from being trained by professionals from different areas (as is the case of the current course). Better trained residents can collaborate more satisfactorily with the people managing their condominium. The residents interviewed who were already involved in condominium management confirmed that this activity called for specific know-how.

While the social support component in new housing projects involves among other things “mobilization, organization and social empowerment”, social workers largely focused on condominium management in the case of the Rubens Lara Complex. People regarded the “síndico” as being synonymous with a community leader acting as a kind of information clearinghouse, while community leaders complained that they received limited support in their attempts to form an association of Rubens Lara residents. Interviewee No. 1 claimed that “*The leaders' heads are focused on their own territory*”. In Bairros-Cota, the leader's territory consists of the entire neighborhood, while the “síndico”'s is confined to the condominium. Residents should be encouraged to engage with their surrounding neighborhoods to help them assume their proper role in the city. Incentives to do this could include participatory budgeting, advice on how to integrate with other residents in the area, creating a neighborhood association and clubs for seniors, etc.,

² Minimum Wage at the time of the study was R\$678.00 [US \$309.73 at the exchange rate of R\$2.189 = 1 US\$ (October/2013)]. Source: http://portal.acsp.com.br/assets/html/indicadores/indicadores_iegv/iegv_dolar.html.

Table 6
Uncertainties by category of satisfaction with social work.

Item	Degree of uncertainty	Dissatisfied	Value	Satisfied	Value
Condominium					
Satisfaction with common areas	0.37	0.64	+	0.22	+
Satisfaction with relationship with other residents	0.13	0.13	+	0.13	+
Satisfaction with relationship with “síndico”	0.13	0.17	+	0.09	+
Satisfaction with management condominium	0.42	0.60	+	0.32	+
Satisfaction with troubleshooting	0.52	0.54	–	0.34	+
Satisfaction with condominium maintenance	0.54	0.41	–	0.38	+
Evaluation of condominium charge	0.79	0.81	+	0.77	^a
Satisfaction with condominium cleanliness	0.21	0.36	+	0.12	+
Satisfaction with condominium security	0.42	0.25	–	0.62	–
Satisfaction with how money was applied	0.41	0.69	–	0.26	+
Attendance at meetings	0.31	0.24	+	0.33	+
Satisfaction with condominium communication	0.28	0.42	+	0.20	+

^a 50% of the reviews positive and 50% negative, therefore no rating value is specified.

Table 7
Contribution of social work according to residents.

Categories	%
To increase my income	1.0
To enhance my education or vocational training	4.0
To help me adapt better to my new life	20.9
To participate in discussions and decisions in my community	5.5
To raise awareness of my rights and duties	14.4
To integrate me with neighbors	4.5
To help improve the environment	5.5
To solve problems with utility companies, CDHU or the construction company	11.4
Other	11.4
Nothing	43.8

and opening communication and participation (if any) channels with municipal and state authorities.

5.6. Residents' overall evaluation

The expression overall evaluation considers the answer from the residents about the intervention impact in their lives.

The Rubens Lara Complex is an ‘involuntary-type’ project, meaning that resettlement was neither demanded nor sought after by the present residents. Nevertheless, the majority of residents approved of the move, and in answer to the question “Did your life improve with the move to Rubens Lara Complex?” 65% claimed that their lives had indeed improved, 9% said that they were the same as before, and 26% said that their lives were worse.

Table 8 indicates that when the control variable is ‘evaluation of life-change following the intervention’, only the question of condominium maintenance showed a lower level of uncertainty in all the items.

Those who claimed that their lives were worse than previously tended to give a negative rating to condominium management, problem-solving capacity, maintenance, condominium charges, use of condominium money and satisfaction with social work. The lowest uncertainties were recorded in the negative ratings for social work, security, maintenance and condominium charges, all of which indicated greater cohesion of views among this group. Only ‘attendance at meetings’ was less uncertain in this group, although they tended to rate the meetings positively. In other words, people participated more in the meetings even when they claimed that their lives had got worse.

As for residents' former housing circumstances, among those who claimed that their lives had worsened, uncertainty

decreased in cases where previous homes were judged to be better. However, for those who claimed that their lives had improved, their previous homes were considered to be worse (average uncertainty). For those claiming that their situation had deteriorated it appeared that their opinion was strongly influenced by their previous housing situation. While the new accommodation was rated positively in all the groups, uncertainty decreased among those stating that their lives had improved after the move.

The relationship between satisfaction with the neighborhood and a positive rating for the move were closely linked (uncertainty rating of only 0.02). For residents who considered that their lives had worsened after the move, the results shows that although uncertainty was low this in fact increased, and in all the cases the residents were satisfied with the neighborhood.

Most residents were satisfied with their present neighborhood (97%). 42.6% mentioned infrastructure (Table 9) when questioned on whether their lives had improved.

One particular aspect that residents considered important was the improved environment for accessing jobs and vocational positions. The availability of jobs in the vicinity of the housing development made it possible for housewives to work. This is a key indicator, since women are normally the most affected by removal processes (Hooper & Ortolano, 2012). Table 9 below shows that 11.3% of the residents claiming that their lives had improved after the move to the Rubens Lara Complex said that this was due predominantly to the availability of better job opportunities.

On the other hand, for those who reckoned that their lives had worsened, most (except for specific cases) attributed this to the increased costs associated with living in the complex. Even for the residents who gave a positive rating to life-change, the problem remained constant across-the-board. This is confirmed by the rating of the condominium charge, where the only residents presenting decreased uncertainty were those who considered that their lives had got worse, and who objected to the condominium charge as being too high. Results that meeting the findings of Chardon and Cifuentes (2010) also almost all the resettled residents had to face higher costs, with some of them claiming that they were affected to a ‘considerable’ degree, and that this influenced their satisfaction level with the resettlement project.

As for the other variables concerning condominium management, the residents who selected the “worse” option tended to give a negative rating to condominium management in general, despite there being no substantial decrease of uncertainty. This included the inability of condominium managers to resolve problems, as was

Table 8

Uncertainty by category of rating of life-change after removal.

Item	Degree of uncertainty	Worsened	Value	Remains the same	Value	Improved	Value
Home							
Previous home	0.67	0.12	+	0.48	+	0.47	–
Current home	0.22	0.55	+	0.31	+	0.15	+
Current neighborhood	0.06	0.23	+	0.10	+	0.02	+
Condominium							
Satisfaction with common areas	0.37	0.50	+	0.40	+	0.34	+
Satisfaction with relationship with other residents	0.13	0.21	+	0.16	+	0.11	+
Satisfaction with relationship with “síndico”	0.13	0.17	+	0.13	+	0.13	+
Satisfaction with management condominium	0.42	0.58	–	0.41	+	0.43	+
Satisfaction with troubleshooting	0.52	0.42	–	0.42	+	0.51	+
Satisfaction with condominium maintenance	0.54	0.40	–	0.53	+	0.52	+
Evaluation of condominium charge	0.79	0.47	–	0.55	+	0.86	+
Satisfaction with condominium cleanliness	0.21	0.31	+	0.22	+	0.20	+
Satisfaction with condominium security	0.42	0.39	–	0.47	–	0.41	–
Satisfaction with how money was applied	0.41	0.61	–	0.42	+	0.38	+
Attendance at meetings	0.31	0.26	+	0.35	+	0.31	+
Satisfaction with condominium communication	0.28	0.54	+	0.28	+	0.26	+

Table 9

– Reasons advanced for the “best” option (%).

Infrastructure	Opportunities	Self-esteem	Housing unit	Health	Quality of life	Peace and quiet	Other
42.6	11.3	9.2	7.1	5.7	5.7	4.3	14.2

as issues such as condominium maintenance, charges and use of money. Security was negatively rated by all the groups.

6. Conclusions

The findings show that involuntary removal is not a determining factor in user satisfaction. Despite relocation being a major event, the type of development to which the former “favela” dwellers were moved provided a series of benefits which convinced the occupants that the trauma of forced removal was not the only parameter governing satisfaction rating with the new accommodation. The location of the new housing contributed significantly to user satisfaction, quality of life improvement and abatement of certain vulnerabilities.

The increased cost has proved to be a major influence on overall user evaluation of the intervention. Building maintenance may risk undermining the benefits of the project, due to the low payment capacity of residents. For this reason it is important to re-address the subject of maintenance in housing policies and monitor it over time. Many residents argue that middle-class expensive living standards are being imposed on them regardless of their income and resource levels.

Social workers were most active during the initial installation and training stages, but their performance in the other social components was considered weak. For example, the length of time that social support was provided in this particular complex (four times longer than in similar developments) was insufficient to ensure that all the legally prescribed requirements were complied with. However, it is worth noting that social workers are still expected to provide solutions to a variety of problems associated with poverty. Resolving such issues through localized housing policies does not appear to be the most effective way forward.

Although clearance and resettlement have increasingly become a feature of Brazil's public housing policy, it will be necessary to adopt public policies to reduce and even eliminate poverty while simultaneously pursuing adequate social housing initiatives for resettlement and removals that do not incur further impoverishment of the population. It can be concluded that in these

circumstances social work needs to be scaled up. Social work, a key instrument for alleviating the problems that can occur during resettlement (or relocation), could benefit from, among other things, a reassessment of its role and scope of activities.

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